What is claimed is:

1. A method of preparing a recommendation to be accessed by a user comprising the steps of:

providing a sparse ratings matrix;

forming a plurality of data structures representing said sparse ratings matrix;

forming a runtime recommendation model from said plurality of data structures;

determining a recommendation from said runtime recommendation model in response to a request from a user; and

providing said recommendation to said user.

2. The method of claim 1 further comprising calculating a unary multiplicity voting recommendation from said runtime recommendation model.

3. The method of claim 1 further comprising calculating a non-unary multiplicity voting recommendation from said runtime recommendation model.

4. The method of claim 2 wherein said set step of calculating a unary multiplicity voting recommendation comprises calculating an anonymous recommendation.

5. The method of claim 2 wherein said set step of calculating a unary multiplicity voting recommendation comprises calculating a personalized recommendation.

6. The method of claim 3 wherein said set step of calculating a non-unary multiplicity voting recommendation comprises calculating an anonymous recommendation.

7. The method of claim 3 wherein said set step of calculating a non-unary multiplicity voting recommendation comprises calculating a personalized recommendation.

8. The method of claim 1,

wherein said step of forming a runtime recommendation model from said plurality of data structures comprises:

mapping said sparse ratings matrix into a plurality of sub-space ratings matrix;

wherein said mapping step comprises multiplying said ratings matrix by a mappings matrix between said ratings matrix and a plurality of categories; and wherein each of said sub-space ratings matrices corresponds to one of said plurality of categories.

9. A method of preparing a recommendation to be accessed by a user comprising the steps of:

providing a sparse ratings matrix;

banding said sparse ratings matrix;

distributing said banded sparse ratings matrix to a plurality of computing nodes, wherein each of said computing nodes generates an output;

forming a runtime recommendation model from said output of said plurality of computing nodes;

determining a recommendation from said runtime recommendation model in response to a request from a user; and

providing said recommendation to said user.

10. A method of preparing a recommendation to be accessed by a user comprising the steps of:

providing a sparse ratings matrix;

striping said sparse ratings matrix;;

distributing said striped sparse ratings matrix to a plurality of computing nodes, wherein each of said computing nodes generates an output;

forming a runtime recommendation model from said output of said plurality of computing nodes;

forming a runtime recommendation model from said plurality of sub-space ratings matrix;

determining a recommendation from said runtime recommendation model in response to a request from a user; and

providing said recommendation to said user.

11. A method of preparing a recommendation to be accessed by a user comprising the steps of:

providing a sparse ratings matrix;

providing an update ratings data structure;

forming a plurality of data structures representing said sparse ratings matrix;

forming a runtime recommendation model from said plurality of data structures and said update ratings data structure;

determining a recommendation from said runtime recommendation model in response to a request from a user; and

providing said recommendation to said user.

12. The method of claim 11 further comprising calculating a unary multiplicity voting recommendation from said runtime recommendation model.

13. The method of claim 11 further comprising calculating a non-unary multiplicity voting recommendation from said runtime recommendation model.

14. The method of claim 12 wherein said set step of calculating a unary multiplicity voting recommendation comprises calculating an anonymous recommendation.

15. The method of claim 12 wherein said set step of calculating a unary multiplicity voting recommendation comprises calculating a personalized recommendation.

16. The method of claim 13 wherein said set step of calculating a non-unary multiplicity voting recommendation comprises calculating an anonymous recommendation.

17. The method of claim 13 wherein said set step of calculating a non-unary multiplicity voting recommendation comprises calculating a personalized recommendation.

18. The method of claim 11, further comprising

mapping said sparse ratings matrix into a plurality of sub-space ratings matrix;

wherein said mapping step comprises multiplying said ratings matrix by a mappings matrix between said ratings matrix and a plurality of categories; and wherein each of said sub-space ratings matrices corresponding to one of said plurality of categories.

19. A method of preparing a recommendation to be accessed by a user comprising the steps of:

providing a sparse ratings matrix;

forming a plurality of data structures representing said sparse ratings matrix;

forming a first recommendation model from said plurality of data structures;

perturbing said first recommendation model to generate a runtime recommendation model;

determining a recommendation from said runtime recommendation model in response to a request from a user; and

providing said recommendation to said user.

20. The method of claim 19 further comprising calculating a unary multiplicity voting recommendation from said runtime recommendation model.

21. The method of claim 19 further comprising calculating a non-unary multiplicity voting recommendation from said runtime recommendation model.

22. The method of claim 20 wherein said set step of calculating a unary multiplicity voting recommendation comprises calculating an anonymous recommendation.

23. The method of claim 20 wherein said set step of calculating a unary multiplicity voting recommendation comprises calculating a personalized recommendation.

24. The method of claim 21 wherein said set step of calculating a non-unary multiplicity voting recommendation comprises calculating an anonymous recommendation.

25. The method of claim 21 wherein said set step of calculating a non-unary multiplicity voting recommendation comprises calculating a personalized recommendation.

26. The method of claim 19, further comprising

mapping said sparse ratings matrix into a plurality of sub-space ratings matrix;

wherein said mapping step comprises multiplying said ratings matrix by a mappings matrix between said ratings matrix and a plurality of categories; and wherein each of said sub-space ratings matrices corresponding to one of said plurality of categories.

27. A method of preparing a recommendation to be accessed by a user comprising the steps of:

providing a sparse ratings matrix;

forming a plurality of data structures representing said sparse ratings matrix;

forming a first recommendation model from said plurality of data structures;

truncating said first recommendation model to generate a runtime recommendation model;

determining a recommendation from said runtime recommendation model in response to a request from a user; and

providing said recommendation to said user.

28. The method of claim 27 further comprising calculating a unary multiplicity voting recommendation from said runtime recommendation model.

29. The method of claim 27 further comprising calculating a non-unary multiplicity voting recommendation from said runtime recommendation model.

30. The method of claim 28 wherein said set step of calculating a unary multiplicity voting recommendation comprises calculating an anonymous recommendation.

31. The method of claim 28 wherein said set step of calculating a unary multiplicity voting recommendation comprises calculating a personalized recommendation.

32. The method of claim 29 wherein said set step of calculating a non-unary multiplicity voting recommendation comprises calculating an anonymous recommendation.

33. The method of claim 29 wherein said set step of calculating a non-unary multiplicity voting recommendation comprises calculating a personalized recommendation.

34. The method of claim 27, further comprising

mapping said sparse ratings matrix into a plurality of sub-space ratings matrix;

wherein said mapping step comprises multiplying said ratings matrix by a mappings matrix between said ratings matrix and a plurality of categories; and wherein each of said sub-space ratings matrices corresponding to one of said plurality of categories.

35. A method of preparing a recommendation to be accessed by a user comprising the steps of:

providing a first ratings matrix;

providing a second ratings matrix;

forming a runtime recommendation model from a cross-set of co-occurrences of said first ratings matrix and said second ratings matrix;

calculating a recommendation from said runtime recommendation model in response to a request from a user; and

providing said recommendation to said user.